



# Overview of the Child-Specific Exposure Factors Handbook



# Child-Specific Exposure Factors Handbook

## Background

- 1997 Exposure Factors Handbook
- Executive Order 13045
- Children's Risk Policy
- ORD's Children's Research Strategy



# Child-Specific Exposure Factors Handbook

## Purpose

To consolidate children exposure factors data

## Our Goal

To provide age-specific data for the various exposure factors



# Child-Specific Exposure Factors Handbook

*Where do the data come from?*

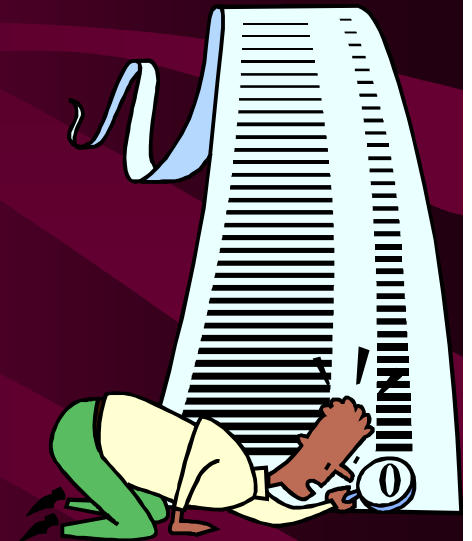
- Exposure Factors Handbook
- Data published after 1997
- Generally, data are presented as reported in the original studies
- Occasionally, additional analysis was conducted



# Child-Specific Exposure Factors Handbook

## Contents

- Breast milk intake
- Food intake
- Tap water intake
- Soil ingestion
- Mouthing behavior
- Inhalation rates
- Surface area
- Soil adherence
- Activity factors
- Consumer products
- Body weight
- Life expectancy



# Child-Specific Exposure Factors Handbook

## What's New

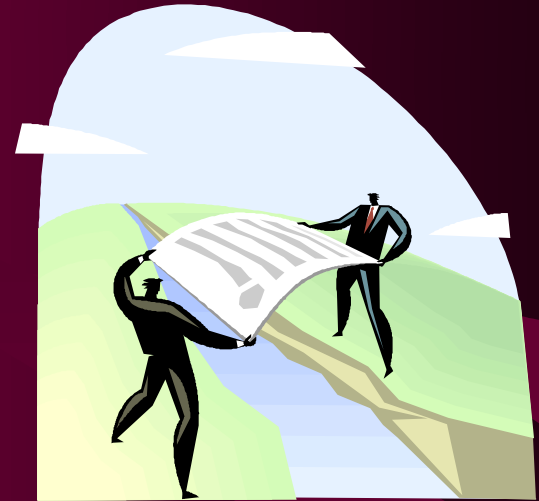
- Food intake data USDA CSFII 94-96
- Tap water intake data USDA CSFII 94-96
- Data on Native American fish consumption rates
- Mouthing behavior data
- Body weight data
- Life expectancy



# Child-Specific Exposure Factors Handbook

## Research Needs

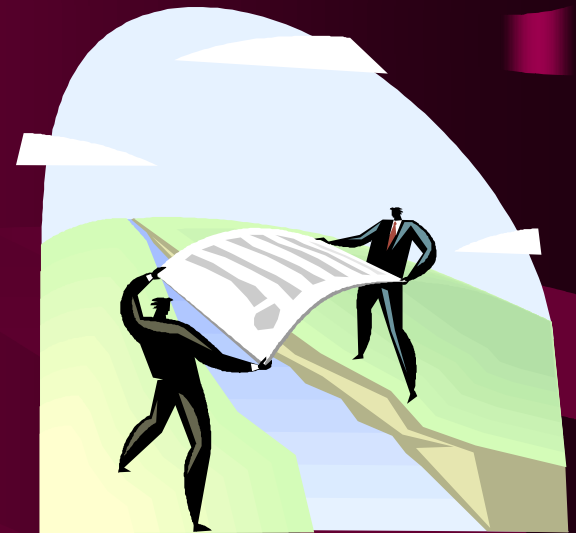
- Breast-feeding
- Food handling practices
- Fish consumption (recreational and subsistence)
- Analysis of USDA CSFII 98 food consumption data
- Soil intake rates
- Non-dietary ingestion exposures



# Child-Specific Exposure Factors Handbook

## Research Needs (cont.)

- Dermal exposures, materials contacted, rate of contact
- Soil adherence factors
- Consumer products, frequency and duration of use
- Inhalation rates
- Methodology to extrapolate from short-term data to chronic exposures





# Child-Specific Exposure Factors Handbook

## On-going NCEA Activities

- Soil ingestion research
  - Arsenic in urine data
  - 1995 study Washington State
- Fat intake analysis
- NCEA home page on Exposure Factors Program  
[www.epa.gov/ncea](http://www.epa.gov/ncea)
- Risk Assessment Forum Workgroup on Childhood Exposures



# Child-Specific Exposure Factors Handbook

## Risk Assessment Forum's Workgroup

- Develop guidance on appropriate age groups to consider for assessing children's exposures
- Workshop held in July 2000: Workshop on Issues Associated with Considering Developmental Changes in Behavior and Anatomy when Assessing Exposure to Children

# Proposed Age Groups

## Age Groups <1 Year

- less than 1 month
- 1 thru 2 months
- 3 thru 5 months
- 6 thru 11 months



## Age Groups \$1 Year

- 12 thru 23 Month
- 24 thru 35 Months
- 3 thru 5 years
- 6 thru 10 years
- 11 thru 15 years
- 16 thru 17 years
- 18 thru 20 Years\*

\* To be considered on case-by-case basis

# Child-Specific Exposure Factors Handbook

*How will age grouping guidance affect the publication of the Handbook?*

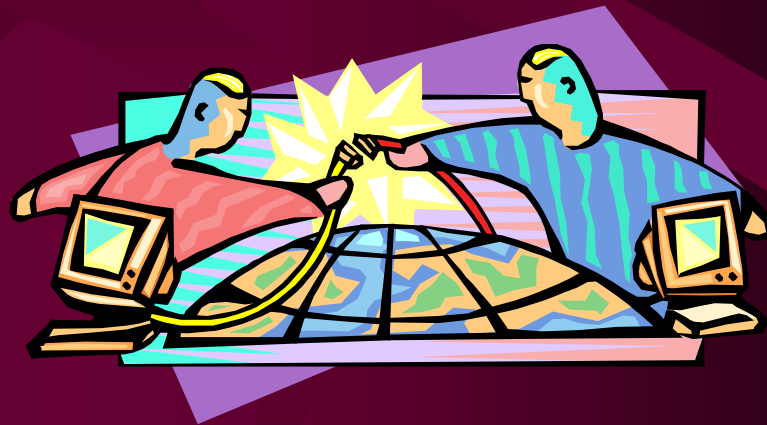


- NCEA may issue an interim final document until age grouping guidance is final
- Revisions will be made as soon as new guidance is finalized
- New analyses need to be conducted for consistency with new guidance

# Child-Specific Exposure Factors Handbook

*How will NCEA keep the Handbook up-to-date?*

Updates will be provided via Internet as new data are available



# Child-Specific Exposure Factors Handbook

## Schedule

- External Review Draft – June 2000

Available on line

[www.epa.gov/ncea](http://www.epa.gov/ncea)

- External Peer Review – Sept. 2000
- Interim Final – November 2001

